



House of Representatives

General Assembly

File No. 467

February Session, 2006

Substitute House Bill No. 5728

House of Representatives, April 10, 2006

The Committee on Government Administration and Elections reported through REP. CARUSO of the 126th Dist., Chairperson of the Committee on the part of the House, that the substitute bill ought to pass.

AN ACT ESTABLISHING THE RENEWABLE ENERGY DEVELOPMENT INSTITUTION.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. (NEW) (*Effective October 1, 2006*) For the purposes of this
2 section and section 2 of this act:

3 (1) "Renewable energy" means a Class I renewable energy source or
4 a Class II renewable energy source, as defined in section 16-1 of the
5 general statutes;

6 (2) "Conservation" means reduction in the consumption of energy or
7 a substance;

8 (3) "Liquid fuels" means any stable liquid at or near ambient
9 temperature and pressure, including propane and butane that are
10 stored as liquids at relatively low pressures;

11 (4) "Depletable energy" means energy from nonrenewable resources;

12 (5) "Internal combustion engine" means an engine with fuel
13 combustion within the engine apparatus, including a gas turbine,
14 rotary combustion, diesel and gasoline piston engine;

15 (6) "Funding priority" means the priority on which the Renewable
16 Energy Development Institution, established in section 2 of this act,
17 considers and funds competitive projects;

18 (7) "Energy return on energy invested" or "EROEI" means the ratio
19 of the amount of energy expended to obtain a resource to the amount
20 of energy obtained from such resource; and

21 (8) "Distributed energy projects or resources" means conservation or
22 load management with modular electric generation or storage and
23 fuel-diverse fossil and renewable energy generation that is either grid-
24 connected or that operates independently.

25 Sec. 2. (NEW) (*Effective October 1, 2006*) (a) There is hereby created as
26 a body politic and corporate, constituting a public instrumentality and
27 political subdivision of the state created for the performance of an
28 essential public and governmental function, the Renewable Energy
29 Development Institution which is empowered to carry out the
30 following purposes that are hereby determined to be public purposes
31 for which public funds may be expended: (1) The assurance of
32 affordable, secure, sustainable, domestic energy supplies in the state;
33 (2) the stimulation of economic development and job creation in the
34 state; (3) creating competition in energy and oil markets; and (4)
35 attracting, enhancing and keeping a strong renewable energy
36 knowledge base in the state, including, but not limited to, scientists,
37 researchers, educators, technicians, inventors, entrepreneurs,
38 technology developers and other persons to timely meet the challenges
39 of the forthcoming era of energy change. The Renewable Energy
40 Development Institution shall not be construed to be a department,
41 institution or agency of the state.

42 (b) Any notes, bonds or other obligations issued by the Renewable
43 Energy Development Institution shall be in accordance with their

44 terms of full force and effect, valid and binding upon the institution for
45 the financing of any project or projects described in subsection (d) of
46 this section.

47 (c) The board of directors of the institution shall consist of eleven
48 members that have experience in renewable energy, renewable energy
49 technology development, renewable energy research, renewable
50 energy commercialization or financing of renewable energy projects
51 and technologies. At least three of such members shall have extensive
52 experience as an entrepreneur, engineer, technician or scientist
53 independent of corporate entities or projects primarily funded by
54 corporations.

55 (d) The Renewable Energy Development Institution shall be
56 authorized to sell bonds and provide financing, on a project finance
57 basis, for development, construction, commissioning, operation and
58 other needs of the following commercial scale projects: (1) Renewable
59 energy projects that produce renewable fuels or other forms of
60 renewable energy capable of replacing or conserving depletable liquid
61 fuels or other forms of depletable energy, (2) other projects,
62 equipment, materials or works that conserve depletable energy, allow
63 or facilitate the replacement of depletable energy with renewable
64 energy, and (3) distributed energy projects or resources that
65 demonstrate a reasonable potential to achieve an EROEI of at least one.

66 (e) In determining priority for the funding of any project, the
67 institution shall assign priority as follows: (1) First priority shall be
68 given to projects, technologies and equipment that conserve depletable
69 liquid fuels or replace them with renewable fuels in significant
70 volumes in internal combustion engines where over seventy per cent
71 of oil is consumed and other projects, including distributed energy
72 projects or resources, that replace or conserve depletable liquid fuels
73 with renewable fuel volumes comparable to the savings in internal
74 combustion engines. The potential volume of liquid fuel savings of a
75 project shall be the greatest factor in consideration by the institution in
76 determining funding priority within this category of projects while

77 reductions in pollution and global warming gas production shall be
 78 the second greatest factor in determining funding such decision-
 79 making. The institution shall consider the reasonable potential to
 80 achieve an EROEI of at least one in considering replacement values; (2)
 81 second priority shall be given to projects, technologies, equipment and
 82 other items that replace or conserve depletable fuels or energy. The
 83 reasonable potential to achieve an EROEI of at least one shall be the
 84 greatest factor in determining funding priority within this category of
 85 projects while reductions in pollution and global warming gasses shall
 86 be the second greatest factor in determining funding priority for
 87 projects in this category. The institution shall consider the reasonable
 88 potential to achieve an EROEI of at least one in considering energy
 89 replacement values; (3) notwithstanding the provisions of subdivisions
 90 (1) and (2) of this subsection, the institution may give additional
 91 funding priority to a project based on the ability of a project or product
 92 to reduce or eliminate toxic air and water pollutants, global warming
 93 gasses, particulates and other emissions; and (4) when considering the
 94 priority of funding any such project, the project's potential to repay the
 95 institution shall be a prerequisite to funding.

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>October 1, 2006</i>	New section
Sec. 2	<i>October 1, 2006</i>	New section

GAE *Joint Favorable Subst.*

The following fiscal impact statement and bill analysis are prepared for the benefit of members of the General Assembly, solely for the purpose of information, summarization, and explanation, and do not represent the intent of the General Assembly or either House thereof for any purpose:

OFA Fiscal Note**State Impact:**

Agency Affected	Fund-Effect	FY 07 \$	FY 08 \$
All	Various - Savings	Potential	Potential

Municipal Impact:

Municipalities	Effect	FY 07 \$	FY 08 \$
All Municipalities	Savings	Potential	Potential

Explanation

The bill establishes the Renewable Energy Development Institution (REDI) for the purpose of providing project financing to certain renewable energy projects. Under the bill, REDI may also provide project financing to certain distributed energy projects. To the extent that such projects increase competition in energy and oil markets, the state and municipalities could experience a savings.

The bill authorizes REDI to sell bonds. This does not appear to have any state or municipal impact because the bill specifies that: (1) REDI is not a department, institution or agency of the state, and (2) any bonds issued by them are valid and binding on that institution. Therefore, any bonds issued by REDI would not be a direct or indirect liability of the state or its municipalities. It should be noted that although the bill authorizes REDI to issue bonds, it does not provide a mechanism for raising the revenue that would be needed to support such bonds.

The Out Years

The annualized ongoing fiscal impact identified above would

continue into the future subject to inflation.

OLR Bill Analysis**sHB 5728****AN ACT ESTABLISHING THE RENEWABLE ENERGY DEVELOPMENT INSTITUTION.****SUMMARY:**

The bill establishes the Renewable Energy Development Institution that is apparently run by an 11-member board of directors. The institution is not a state agency, department, or institution but rather a body politic and corporate, constituting a public instrumentality and political subdivision of the state created to perform an essential public and government function.

EFFECTIVE DATE: October 1, 2006

RENEWABLE ENERGY DEVELOPMENT INSTITUTION***Board of Directors***

The bill requires the 11-member board to consist of people with experience in (1) renewable energy, (2) renewable energy technology development or commercialization, (3) renewable energy research, or (4) financing of renewable energy projects and technologies. At least three of the members must have extensive experience as an entrepreneur, engineer, technician, or scientist independent of corporate entities or projects primarily funded by corporations. The bill does not directly authorize the board to carry out the institution's functions.

Duties

The institution can use public funds to carry out the following public purposes:

1. assure affordable, secure, sustainable, domestic energy supplies in the state;

2. stimulate economic development and job creation in the state;
3. create competition in energy and oil markets; and
4. attract, enhance, and keep a strong renewable energy knowledge base in the state, including scientists, researchers, educators, technicians, inventors, entrepreneurs, technology developers, and other persons to meet new energy challenges.

The bill authorizes the institution to sell bonds and provide project financing for development, construction, commissioning, operation, and other needs of the following commercial scale projects: (1) renewable energy projects that produce renewable fuels or other forms of renewable energy capable of replacing or conserving depletable liquid fuels or other forms of depletable energy; (2) other projects, equipment, materials, or works that conserve depletable energy, allow or facilitate the replacement of depletable energy with renewable energy; and (3) distributed energy projects or resources that demonstrate a reasonable potential to achieve an energy return on energy invested (EROEI) of at least one.

The bill specifies that any notes, bonds, or other obligations the institution issues to finance any project are valid and binding. The bill requires that any project's potential to repay the institution is a prerequisite to funding, but it is unclear how this will be implemented to finance projects.

"Depletable energy" is energy from nonrenewable resources and "EROEI" is the ratio of the amount of energy expended to obtain a resource to the amount of energy obtained from the resource.

Prioritizing Projects

The bill requires the institution to consider certain factors when determining whether to fund a project and what priority to give it. It must give first priority to projects, technologies, and equipment that conserve depletable liquid fuels or replace them with renewable fuels in significant volumes in internal combustion engines, and other

projects, including distributed energy projects or resources, that replace or conserve depletable liquid fuels with renewable fuel volumes comparable to the savings in internal combustion engines. When determining funding priority for projects falling under this category, the institution must first consider the potential volume of liquid fuel savings. The institution must next consider the reduction in pollution and global warming gas production. The bill requires the institution to also consider the reasonable potential to achieve an EROEI of at least one.

The institution must give second priority to projects, technologies, equipment, and other items that replace or conserve depletable fuels or energy. When determining funding priority for projects falling under this category, the institution must first consider the reasonable potential to achieve an EROEI of at least one. It must next consider the reduction in pollution and global warming gasses. The institution must also consider the reasonable potential to achieve an EROEI of at least one in considering energy replacement values.

The bill allows the institution to give additional funding priority to any project based on its ability to reduce or eliminate toxic air and water pollutants, global warming gasses, particulates, and other emissions.

BACKGROUND

Related Bill

sHB 5525, favorably reported by the Committee on Energy and Technology, establishes among other things the Energy and Technology Authority and the Department of Energy Policy and Development, which the authority oversees.

COMMITTEE ACTION

Government Administration and Elections Committee

Joint Favorable Substitute

Yea 19 Nay 0 (03/24/2006)